

external electrodes formed on an exterior of the piezoelectric vibrator and electrically connected respectively to the common internal electrode layers and the segment internal electrode layers; and

a fixing member to which a surface of the piezoelectric vibrator is fixed;

wherein the piezoelectric vibrator is displaceable in a direction perpendicular to a lamination direction in which the internal electrode layers and piezoelectric layers are laminated;

wherein a magnitude of electric fields applied between the common and segment internal electrode layers to the piezoelectric layers is non-uniform to cancel a bending moment caused during contraction of the piezoelectric vibrator.

13. (Amended) A piezoelectric vibrator unit comprising:

at least one piezoelectric vibrator including:

common internal electrode layers and segment internal electrode layers arranged alternately;

piezoelectric layers, each interposed between adjacent pair of the common and segment internal electrode layers; and

external electrodes formed on an exterior of the piezoelectric vibrator and electrically connected respectively to the common internal electrode layers and the segment internal electrode layers; and

a fixing member to which a first surface of the piezoelectric vibrator is fixed;
wherein the piezoelectric vibrator is displaceable in a direction perpendicular to a lamination direction in which the internal electrode layers and piezoelectric layers are laminated;

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wherein a length of at least one of the internal electrode layers, located away from the surface fixed to the fixing member, is shorter than other internal electrode layers located between the at least one internal electrode layer and the first surface.

16. (Amended) The piezoelectric vibrator unit according to one of claims 1, 5, 9, 10, 13, 14 and 15, wherein said at least one piezoelectric vibrator includes comb-like piezoelectric vibrators constructing a piezoelectric vibrator group.